About Guam EHDI

The Guam EHDI Project was established in 2002 through a federal grant awarded to the University of Guam Center for Excellence in Developmental Disabilities Education, Research, & Service (Guam CEDDERS). The Guam EHDI Project receives support through a Cooperative Agreement by the U.S. Health and Human Services (HHS), Health Resources and Services Administration (HRSA). The Centers for Disease Control and Prevention (CDC) also provides funding support to complement Universal Newborn Hearing Screening on Guam by implementing Guam ChildLink-EHDI, an integrated data tracking & surveillance system to support the Guam EHDI Project.

Through the efforts of this Project, the Universal Newborn Hearing Screening and Intervention Act, Public Law 27-150, became law in December 2004. Guam's local legislation aligns with national goals and assures an upgraded standard of care for all babies born on Guam.

The goals of the current Guam EHDI Project are to assure that:

- all babies born on Guam are screened for hearing loss by 1 month of age;
- babies with hearing loss are diagnosed by 3 months of age;
- quality early intervention services they need are initiated by 6 months of age. This is also known as the "1-3-6 Plan."

Early identification of hearing loss is important because:

- Hearing loss is the most frequent birth defect.*
- Undetected hearing loss has serious negative consequences.
- There are dramatic benefits associated with early identification of hearing loss.

*Source: National Center on Hearing Assessment & Management (NCHAM), Utah State University.

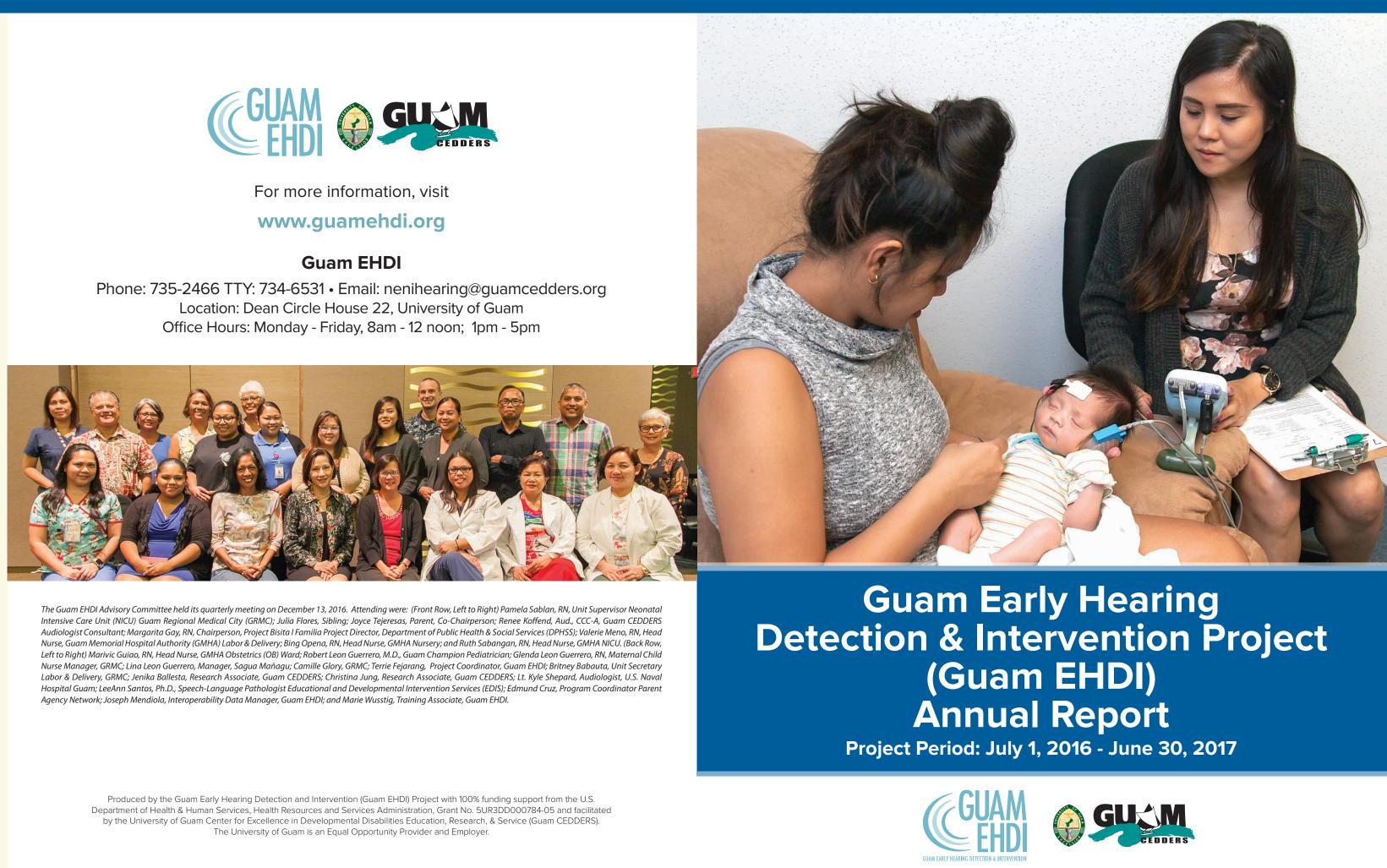
Project Achievements

- Benchmarks (targeted numbers) were met for hearing screening performed on newborns at the civilian birthing sites before 1 month of age.
- Benchmarks were met for infants needing outpatient rescreen.
- Benchmarks were met for the first time for infants needing a high risk rescreen.
- Strategies used to reduce the number of infants lost to follow-up in the outpatient rescreen category included:
 - 1. Scheduling and giving hearing screening outpatient appointments at the birthing sites before discharge.
 - 2. Offering flexible hearing screening appointment dates and sites.
 - 3. Making reminder calls about appointment date and time.

- Public awareness on the importance of early detection of hearing loss through the screening and evaluation processes was greatly enhanced by the Project's participation in 10 community outreach events during the year.
- Guam EHDI and the Department of Public Health and Social Services (DPHSS), in collaboration with the University of Hawaii, **Telecommunications and Social Informatics** (TASI) Research Program, continued to collaborate on the efforts toward interoperability between the Electronic Health Record (EHR) and Guam ChildLink - EHDI.
- Efforts continued to strengthen the data collection and reporting system in preparation of the long-term goal of turning ChildLink -EHDI to system partners.



Location: Dean Circle House 22, University of Guam Office Hours: Monday - Friday, 8am - 12 noon; 1pm - 5pm







Types of Hearing Loss Identified from November 2002-Present

Conductive ¹	58
S ensorineural ²	27
Mixed ³	7
Total:	92

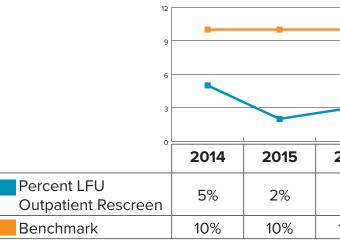
There were 92 infants identified with a hearing loss since the Guam EHDI project began in 2002. These infants were all offered early intervention services through the Guam Department of Education, Guam Early Intervention System (DOE-GEIS).

¹Conductive Hearing Loss - Type of hearing loss where sound is not conducted efficiently through the outer ear canal to the eardrum and can often be medically or surgically corrected.

²Sensorineural Hearing Loss - Type of hearing loss when there is damage to the inner ear or to the nerve pathways from the inner ear to the brain.

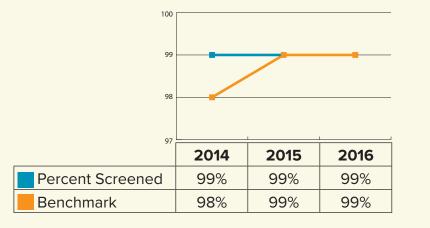
 $^3{\rm Mixed}$ Hearing Loss - Type of hearing loss that is a combination of conductive hearing loss and sensorineural hearing loss.

Note: Data is from infants born at civilian sites: Guam Memorial Hospital Authority (GMHA), Sagua Mañagu Birthing Center (SMBC), and Guam Regional Medical City (GRMC).

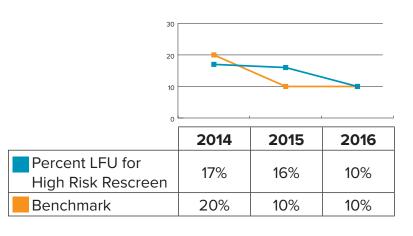


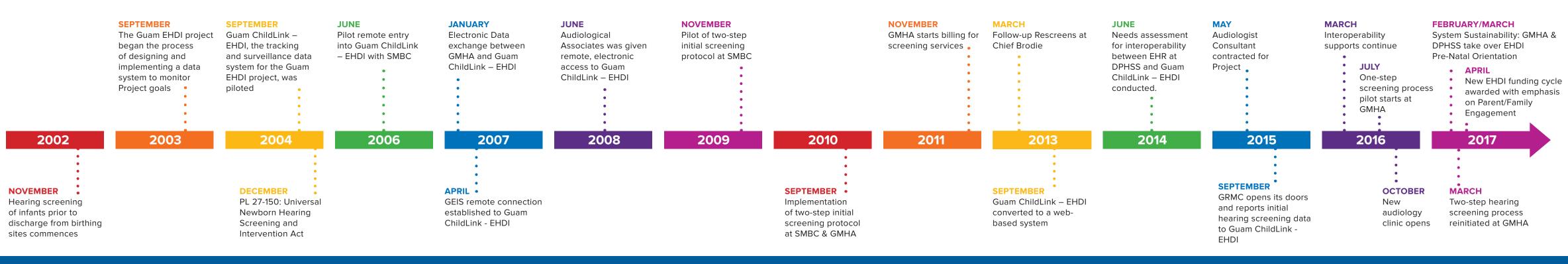
Percent Lost to Follow Up at High Risk Rescreen*

* High Risk Rescreen - Follow-up rescreen of infants who passed their initial hearing screening but have risk factors for potential late onset hearing loss



The Guam EHDI project has maintained a 99% initial hearing screening rate at all civilian birthing sites. Guam Regional Medical City data is included in the 2015 and 2016 screening rate.





Initial Screening*

* Initial Screening - Screening of infants for potential hearing loss prior to discharge from the birthing site.

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Percent Lost to Follow Up at Outpatient Rescreen*

*Outpatient rescreen - Follow-up rescreen of infants who did not pass their initial hearing screening.

]	
2016	
3%	
10%	

The Lost to Follow Up (LFU) rate for outpatient rescreens decreased to 2% in 2015. The LFU rate slightly increased to 3% in 2016, but remained below the benchmark for this level.

The LFU rate for High Risk Rescreens was at 17% in 2014, exceeding the benchmark for that year. In 2015, the rate decreased to 16%, but was over 6% over the established 10% benchmark for the year. In 2016, the rate significantly decreased to 10%, meeting the established Guam EHDI benchmark.

Diagnostic Audiological Evaluation (DAE)*

*Infants who do not pass a follow-up rescreen, receive a DAE to determine whether or not a hearing loss is present and if so, the type and severity of the hearing loss.

	Total Referred for DAE	Total DAEs completed	Total with DAE by 3 months	Total with Normal Hearing	Total with Hearing Loss	Total receiving El Services	Total Receiving El Services before 6 months	Total Pending DAE	Total Deceased	Total Relocating/ Refusing Services	Total LFU
2014	50	31	13	10	8	5	4	6	1	7	5
2015	38	20	4	14	2	1	1	13	0	3	2
2016	46	14	5	9	3	1	1	16	0	9	7



There were a total of 14 infants LFU between 2014-2016. Guam EHDI continues to focus efforts on decreasing LFU for infants needing diagnostic audiological evaluation. Guam EHDI's audiologist consultant is assisting the project with quality improvement activities at this level.



